

**FORM 51-102F3**

**Material Change Report**

**UNDER SECTION 7.1 OF  
NATIONAL INSTRUMENT 51-102**

1. **Name and Address of Head Office of the Company:**

**Sona Nanotech Inc.**  
2001 - 1969 Upper Water Street  
Halifax, Nova Scotia  
B3J 3R7

Telephone: (902) 442-0653

(the "Company")

2. **Date of Material Change:**

July 2, 2020

2. **News Release:**

A news release was disseminated on July 2, 2020 and was subsequently filed on SEDAR.

4. **Summary of Material Change:**

The Company has successfully completed preliminary testing of its rapid COVID-19 antigen gold nanorod test kit with an established limit of detection, and sales will now be permitted under a "research use only" label until full regulatory authority is granted.

5. **Full Description of Material Change:**

Please see attached Schedule "A".

6. **Reliance on subsection 7.1(2) of National Instrument 51-102:**

Not applicable.

7. **Omitted Information:**

Not applicable.

8. **Executive Officer:**

Robert Randall, Chief Financial Officer  
Telephone: (902) 442-7187

9. **Date of Report:**

July 3, 2020

**Sona Nanotech Announces Validation Results for its COVID-19 Antigen Test**

**July 2, 2020 - Halifax, Canada** – Sona Nanotech Inc. (CSE: SONA), (OTCQB: SNANF) (the “Company”), a developer of rapid, point-of-care diagnostic tests, is pleased to announce that its rapid detection, COVID-19 antigen test’s laboratory validation studies of performance levels have resulted in a test sensitivity of 96%, test specificity of 96% and a Limit of Detection (“LOD”) of  $2.1 \times 10^2$  TCID<sup>50</sup>. Sales of the tests will now be permitted under a ‘research use only’ label until full regulatory authority is granted, in relevant territories, at which time the ‘research use only’ label requirement would be lifted, as discussed below. Technology transfer to manufacturers is currently underway to produce tests to meet current and expected demand. The Company will provide an update on sales progress and manufacturing delivery timetables in the coming weeks.

MRIGlobal, using live COVID-19 viral cultures, determined the test to have a limit of detection of  $2.1 \times 10^2$  TCID<sup>50</sup> which corresponds to an ability to detect the virus in patients with ‘low’ viral loads in 10-15 minutes, as compared to RT-PCR testing which typically takes 24-48 hours to detect the virus. Limit of detection is the minimum amount of target microorganisms that can be reliably detected under optimal conditions and is an essential step in determining the sensitivity of any assay. Current studies show positive COVID-19 patients presenting symptoms have viral loads in the  $10^4 - 10^6$  range.

Validation studies were also conducted in-house to assess potential clinical performance of the test using 30 nasopharyngeal samples from healthy individuals who were presumed negative for COVID-19. Results from the study generated a specificity of 96% (29/30) and a sensitivity of 96% (28/29). All specimen samples tested generated negative results, except for one, generating the above result of 96%. To generate the sensitivity data, the remnants of each negative sample were spiked with gamma irradiated COVID-19 virus and the tests rerun to determine the positive results, generating the above result of 96%.

As the pandemic continues and the understanding of COVID-19 improves, regulators have placed greater emphasis on clinical, ‘in-field’ evaluations of rapid tests at the point of care to ensure they can be deployed with confidence. Following consultation with MRIGlobal and the FDA, Sona will enter into independent clinical, in-field evaluation studies to generate the data to support its analytical and clinical data as part of the submission it will make to Health Canada and the FDA for emergency use authorization (“EUA”) approval. In-field collection of a minimum of 30 confirmed negative and 30 confirmed positive specimens and the associated data analysis is expected to be completed while technology transfer to manufacturers is still underway. To that end, the Company has engaged with a contract research organization (“CRO”) based in the U.S. to conduct one such study and a university-affiliated laboratory outside of the U.S. to conduct a second. The Company has been informed that the results of these field studies should be provided by the end of July, at which time it intends to make final submissions to regulatory authorities in multiple jurisdictions. During this time, technology transfer will continue and quality assurance manufacturing batches are expected to be run with manufacturing partners. The Company is committed to maintaining ongoing evaluations of its test in order to understand its performance in a wide range of testing environments.

Darren Rowles, CEO of Sona Nanotech, commented, “These excellent performance results are underpinned by our unique nanorod technology and completes a further milestone achieved for Sona along our path to bring a quality rapid test to market at scale. This will allow expansion of testing by governments, help ease the burden on healthcare systems, keep healthcare workers safe by allowing them to know their status on a daily basis and assist in softening restrictions by providing a quick and simple means to screen individuals. Our team have worked tirelessly to bring this product to this point in a record time and my thanks goes out to all involved in progressing the test this far.”

Rapid, point-of-care, antigen tests can make a significant contribution to reducing the spread of COVID-19 by detecting the presence of the virus in individuals. The tests use a nasopharyngeal swab to collect samples, which are then placed in a proprietary reagent solution and added to the sample port of the lateral flow test cassette. Blue colored lines will appear to indicate either a positive (2 lines) or negative result (1 line) within minutes.

The Company cautions that its COVID-19 rapid antigen test is not yet approved by the FDA or other regulatory bodies and will update the market as appropriate.

**Contact:**

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**About Sona Nanotech Inc.**

Sona Nanotech Inc. is a nanotechnology life sciences firm that has developed multiple proprietary methods for the manufacture of various types of gold nanoparticles. The principal business carried out and intended to be continued by Sona is the development and application of its proprietary technologies for use in multiplex diagnostic testing platforms that will improve performance over existing tests in the market.

Sona's gold nanorod particles are CTAB (cetyltrimethylammonium) free, eliminating the toxicity risks associated with the use of other gold nanorod technologies in medical applications. It is expected that Sona's gold nanotechnologies may be adapted for use in applications, as a safe and effective delivery system for multiple medical treatments, pending the approval of various regulatory boards including Health Canada and the FDA.

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